



Facility will focus on bioenergy, global food security

May 22, 2012

Los Alamos, N.M., May 22, 2012 – U.S. Senator Tom Udall (D-NM) spoke at the groundbreaking ceremony marking the start of construction on the New Mexico Consortium's (NMC) biological research facility last Friday afternoon.

Senator Udall noted New Mexico's novel and extensive contributions to our nation's renewable energy efforts and congratulated LANL, the NMC, and Richard Sayre on their commitment to advancing the nation's goals for energy independence.

"Los Alamos National Laboratory has always pioneered discoveries to protect our nation, and today energy security is an important part of that work. This biology research lab is a great step forward for the consortium and for our nation. I'm especially excited about the work that will be done here on biofuel and biotechnology benefits of algae," Senator Udall said.

LANL Director Charles McMillan told the standing-room-only crowd at the event he was excited about LANL's collaboration with the NMC. He noted that the NMC and LANL share a common mission in energy security. "Research into alternative forms of energy, of which biofuels is a key component, is one of the major national security imperatives of this century. Energy security is vital to our future national security and the efficient functioning of our market economy," noted McMillan.

LANL, Los Alamos County, Los Alamos National Bank, and the New Mexico Consortium have worked together in a close partnership for over a year to recruit Richard Sayre and his team and develop this facility. Katharine Chartrand, executive director of the New Mexico Consortium, remarked on the complexity of the initiative and the strength of the partnership. "This has been a remarkable accomplishment. I thank everyone who worked on this endeavor. Los Alamos County, in particular, demonstrated vision and initiative in their response to this economic development opportunity," Chartrand said.

Sharon Stover, Los Alamos County Council Chairwoman and Master of Ceremonies for the groundbreaking event on Friday afternoon, discussed the economic impact of the project: "Dr. Sayre's team provides the cornerstone for a broad research initiative in plant biology that will bring 32 new high-paying technical jobs to Los Alamos."

"Today, the New Mexico Consortium has \$6 million in new research programs and \$20 million in pending proposals as a result of this initiative. Sayre's research also has tremendous commercial potential. We are already seeing opportunities to spin off commercial applications of his research locally and attract commercial partners to Los Alamos," Stover continued.

Pete Lammers, director of the Algal Biofuels Program at New Mexico State University, represented the New Mexico universities at the event. Lammers discussed the technical and policy challenges that face the biofuel initiative. "The New Mexico Consortium offers an ideal platform for interdisciplinary science and engineering studies needed to commercialize renewable fuel production in the United States. The NMC is leading the way into a new era of collaboration between LANL, the New Mexico universities and industry that will greatly benefit biofuels research. "

Los Alamos National Bank provided the financing for the project and has been a strong supporter of the project from its inception. Bill Enloe, CEO of LANB, spoke at the event. "This day represents a tremendous milestone for Los Alamos. What is exciting for me is the model. This partnership between the NMC, LANL and the county is a model of how we can leverage Los Alamos' assets to benefit the world and particularly Northern New Mexico and the state of New Mexico," Enloe said.

Sayre and his team of 12 researchers will be the anchor research program in this facility. Sayre holds a joint appointment with LANL and NMC. "I saw two major opportunities in coming to Los Alamos: do really big science and interact with cross-disciplinary sciences. Given the natural resources of the state and the depth and breadth of scientific research going on here, the opportunities for partnerships and collaborations in New Mexico are endless."

In addition to its work in energy security, Sayre's team is beginning new research in solar energy. This work combines material science and biology to improve the efficiency of photosynthesis.

The team is also expanding its research program in food security. "Just as exciting as our research in biofuels—and absolutely critical—is our work in global food security," said Sayre. "Climate change is making it more difficult to grow enough food for our earth's population. This is especially apparent in emerging economies; we've already seen that food security issues drive political unrest. The recent upheaval in Tunisia began when citizens protested food inflation, and a subsequent lack of food in the markets."

Sayre's team has been focusing on food security issues since 2005, with a Global Grand Challenges Grant from the Bill and Melinda Gates Foundation. "Cassava is a staple food for more than 250 million sub-Saharan Africans. My research team is working on developing Cassava strains that are disease resistant, more nutritious and have a longer shelf life," noted Sayre.

The Los Alamos Commerce and Development Corporation has worked with the NMC and provided assistance since their inception. "This groundbreaking is a great milestone both for NMC as well as the broader community. The NMC is capable of so much more in the future," commented Kevin Holsapple, executive director of the LACDC.

Also present at the ceremony were representatives from the offices of U.S. Senator Jeff Bingaman (D-NM) and U.S. Congressman Ben Ray Lujan (D-NM), as well as David Martin, cabinet secretary for the New Mexico Environment Department. Kevin Smith, NNSA DOE Los Alamos Site Office manager represented DOE. The representatives congratulated the NMC, LANL and the county on their successful partnership and expressed the support of their respective offices.

New Mexico State Representative Jim Hall (R-Los Alamos) commented on the occasion, saying, "This groundbreaking for a building is also the groundbreaking for an economic and research initiative by the New Mexico Consortium that means a bright future for bioscience in Los Alamos and New Mexico."

Construction on the new facility will begin in earnest in June. The NMC expects to complete the 27,000 square foot laboratory and office facility next spring. The 4,000 square foot research greenhouse will be operational by the end of this summer. Jaynes Corporation was awarded the contract to build the facility through a competitive bid process. Jaynes has experience building other large laboratories in the state. This project is synergistic with several other large projects that Jaynes is building in Los Alamos County, including the new Municipal Building on Central Avenue.

“We invited five general contractors with experience building laboratories to bid on the job. All of the contractors considered were highly qualified and every contractor submitted a competitive bid. Jaynes Corporation set itself apart by the depth of their management team. The most important part of the construction process is working with the builder to achieve a design that is buildable and cost effective. I felt that Jaynes would be the best partner in this respect and they have been excellent,” Chartrand explained.

Studio Southwest Architects, Inc. was selected as the project architect firm; Rob Burstein is a principal in the architect firm and leads the design team. The building promises to be a new, modern landmark in Los Alamos. “The design takes advantage of the spectacular views from the site and the slope of the land,” said Bob Heiser, senior principle architect at Studio Southwest Architects, Inc.

The Biological Research Laboratory is a \$12 million project in total, with \$8 million for construction. The vision for the building is to support synergist cross-institutional research collaborations in plant biology with an emphasis on energy and food security. The new laboratory will support research collaborations in this area among LANL, industry and academic partners.

The New Mexico Consortium is a non-profit partnership of the three New Mexico Universities. The NMC supports scientific research and education collaborations with LANL.

For more information about the New Mexico Consortium, contact Katharine Chartrand, Executive Director, or Shannan Yeager, Director of Community Development, at 412-4200, or via email at knc@newmexicoconsortium.org or syeager@newmexicoconsortium.org.

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